



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,397	09/27/2001	Toshiya Takahashi	212643US2RD	9041

22850 7590 01/25/2007  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
----------

THOMPSON, JAMES A

ART UNIT	PAPER NUMBER
----------	--------------

2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

09/963,397

Applicant(s)

TAKAHASHI ET AL.

Examiner

James A. Thompson

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,12-17,20-25 and 28-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 06 November 2006 have been fully considered but they are not persuasive.

Regarding page 2, line 2 to page 3, line 10: Applicant sets forth an advantage to the recited feature of have the determining unit determine the transmission sequence such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted. While Applicant shows an advantage to setting the transmission sequence in a particular fashion, Examiner has also shown that, given the combination of Steele (US Patent 5,884,056) and Hori (EP 1 024 444 A2) already presented, it would have been an obvious engineering design choice for one of ordinary skill in the art at the time of the invention to specifically have the already taught transmission sequence determined by the determining unit of Steele to determine the transmission sequence such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted. Firstly, one of ordinary skill in the art would have expected Applicant's invention to perform equally well with transmitting one of the non-scene-changing still pictures positioned in a different interval than the largest interval between scene-changing still pictures because the user may just as easily select a different interval to view in more detail. Furthermore, in Steele, non-scene-changing still pictures are selected in the interval between scene-changing still pictures (column 9, lines 39-45 of Steele). This process can be iterated repeatedly to narrow down the interval (column 9, lines 57-59 of Steele). A natural place for a user to select a non-scene-changing picture would be between the two scene-changing still pictures corresponding the largest time interval since such a selection would better narrow down the video, giving fuller information to the user.

While Applicant has demonstrated an advantage for the particular transmission sequence, this does not negate the obviousness rejection set forth by Examiner, since Applicant's demonstrated advantage does not show non-obviousness of the engineering design choice set forth by Examiner. When a *prima facie* case of obviousness has been set forth by Examiner, the burden is then upon the Applicant to demonstrate non-obviousness through evidence and/or argument (see MPEP §2145). The obvious engineering design choice set forth by Examiner follows logically from the combination of Steele and Hori, as discussed in item 5 of the previous office action, mailed 05 June 2006, and below in the prior art

Art Unit: 2625

rejections. The burden is now upon Applicant to demonstrate the non-obviousness of the engineering design choice set forth by Examiner.

**Regarding page 3, line 11 to page 5, line 4:** Firstly, Hori is clearly analogous to Steele and the present application since Hori is in the field of digital still picture sampling and presentation of video data. By stating that Hori is not related to picture transmission technology, Applicant is attempting to require a different field of endeavor for the cited prior art, even though Steele and Hori are clearly analogous art. Secondly, since Hori teaches video data that is sampled, transmitted and displayed (see, e.g., figures 1-2 of Hori), Hori is in fact also in the field of picture transmission technology. Finally, Applicant again focuses on Steele and Hori individually without adequately addressing the *combination* of Steele and Hori clearly set forth in said previous office action, and also relies upon generalizations of the references without addressing the particular rejections that have been made.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 4-9, 12-17, 20-25 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele (US Patent 5,884,056) in view of Hori (EP 1 024 444 A2) and obvious engineering design choice.**

**Regarding claims 1, 9, 17 and 25:** Steele discloses an apparatus (figure 2 of Steele) comprising a transmission request receiving unit configured to receive a transmission request for a plurality of still pictures (figure 4(24) and column 6, lines 13-15 of Steele) including scene-changing still pictures (figure 5(42); figure 7(52); and column 6, lines 31-35 of Steele); a transmission sequence determining unit configured to determine a transmission sequence for the plurality of still pictures which is different than the sequence of the still pictures in the picture stream (figure 4(26-30) and column 6, lines 14-21 of Steele); a transmission unit configured to transmit the still pictures in one series according to the transmission sequence determined by the determining unit (figure 4(32) and column 6, lines 21-25 of Steele); and a still picture control unit (figure 2(12) of Steele) coupled to and configured to control the receiving unit, the determining unit, and the transmission unit (column 5, lines 22-28 of Steele). The

Art Unit: 2625

transmission request unit, transmission sequence determining unit, and the transmission unit are portions of physically embodied software controlled by a CPU which reside on the computers requesting and providing said plurality of still pictures from said picture stream (video) (column 5, lines 10-21 of Steele). The computers are coupled together and controlled by the physically embodied software on a central server (figure 2(12) and column 5, lines 22-28 of Steele).

Steele further discloses that said determining unit transmits the scene-changing still pictures (figure 5(42); column 6, lines 31-35; and column 8, lines 48-52 of Steele) since the scene-changing still pictures are the important key markers to present to the user to get an understanding of the corresponding video segment (column 8, lines 48-55 of Steele). Scene-changing still pictures are thus transmitted as the primary pictures to be transmitted for the user to view regarding the corresponding video (column 8, lines 48-55 of Steele).

Steele does not disclose expressly that the still pictures also contain non-scene-changing still pictures; and that the determining unit determines the transmission sequence be such (a) that the scene-changing still pictures are transmitted prior to the non-scene-changing still pictures and (b) that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

Hori discloses a collection of thumbnail still pictures taken from video data (figure 2 and column 8, lines 9-11 of Hori) which includes scene-changing still pictures (column 11, lines 8-13 of Hori) and non-scene-changing ("arbitrary time intervals") still pictures (column 8, lines 9-12 of Hori). In Hori, the scene-changing still pictures are also considered more important than the non-scene-changing still pictures since the scene-changing still pictures are created without decimation (column 11, lines 8-13 of Hori).

Steele and Hori are combinable because they are from the same field of endeavor, namely digital still picture sampling and presentation of video data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include non-scene-changing still pictures, as taught by Hori, in the transmitted picture stream taught by Steele. Since the scene-changing still pictures are clearly more important, as taught by both Steele and Hori, one of ordinary skill in the art at the time of the invention would obviously transmit the scene-changing still pictures before the non-scene-changing still pictures. The motivation for doing so would have been to provide the user with additional data regarding a particular scene or scenes within the video the user is considering downloading, thus allowing the user

Art Unit: 2625

to better determine if the video is worth ordering for download. Therefore, it would have been obvious to combine Hori with Steele.

Steele in view of Hori does not disclose expressly that the determining unit determines the transmission sequence such (b) that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

At the time of the invention, it would have been an obvious engineering design choice for one of ordinary skill in the art to have the determining unit taught by Steele determine the transmission sequence such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted. One of ordinary skill in the art would have expected Applicant's invention to perform equally well with transmitting one of the non-scene-changing still pictures positioned in a different interval than the largest interval between scene-changing still pictures because the user may just as easily select a different interval to view in more detail. Furthermore, in Steele, non-scene-changing still pictures are selected in the interval between scene-changing still pictures (column 9, lines 39-45 of Steele). This process can be iterated repeatedly to narrow down the interval (column 9, lines 57-59 of Steele). A natural place for a user to select a non-scene-changing picture would be between the two scene-changing still pictures corresponding the largest time interval since such a selection would better narrow down the video, giving fuller information to the user.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Steele in view of Hori in the manner set forth above to obtain the invention as specified in claims 1, 9, 17 and 25.

Further regarding claim 9: The units which comprise the apparatus of claim 1 provide the corresponding means which comprise the apparatus of claim 9.

Further regarding claim 17: The apparatus of claim 1 performs the method of claim 17.

Further regarding claim 25: As discussed above, the units of claim 1 are embodied as software and are thus the corresponding computer code which comprise the computer-readable medium of claim 25.

**Regarding claims 4, 12, 20 and 28:** Steele discloses a memory unit coupled to the control unit and the transmission unit (column 4, line 64 to column 5, line 2 of Steele), and configured to store the still pictures as a transmission stream in the sequence determined by the determining unit (column 6, lines 16-22 of Steele). In order to produce a transmission stream of the still pictures (column 6, lines 16-22 of Steele) and transmit said stream over a server-controlled network (column 4, line 64 to column 5, line 2 of

Art Unit: 2625

Steele), a memory unit on the client computer (figure 2(10) of Steele) which stores the transmission stream for transmission is inherent.

**Regarding claims 5, 13, 21 and 29:** Steele discloses a picture stream input unit coupled to the still picture control unit (column 5, lines 22-27 of Steele) and configured to input the picture stream (column 6, lines 6-8 of Steele); and a thumbnail picture extracting unit coupled to the still picture control unit and the still picture input unit (column 5, lines 22-27 of Steele), and configured to extract the plurality of the still pictures from the picture stream input to the still picture input unit (column 6, lines 13-18 of Steele). In order to display the picture stream (column 6, lines 13-18 of Steele), extraction of the plurality of the still pictures from the picture stream is inherent. Otherwise, there is nothing to display.

**Regarding claims 6, 14, 22 and 30:** Steele discloses a picture stream control unit coupled to the picture stream input unit and the still picture control unit (column 5, lines 22-27 of Steele), and configured to transmit the transmission request received by the receiving unit to an external apparatus (column 6, lines 12-17 of Steele), and configured to control the picture stream input unit so as to input the picture stream (column 6, lines 13-18 of Steele).

**Regarding claims 7, 15, 23 and 31:** Steele discloses a first memory unit coupled to the still picture control unit and the input unit (column 5, lines 22-27 of Steele) and configured to store the input plurality of still pictures (figure 7 and column 8, lines 14-18 of Steele); and a second memory unit coupled to control unit (column 5, lines 22-27 of Steele) and configured to store the plurality of still pictures as a transmission stream in the sequence determined by the determining unit (column 6, lines 21-25 of Steele). In order to display the input plurality of still pictures (figure 7 of column 8, lines 14-18 of Steele), a memory unit on the user's computer is inherent. Further, in order to transmit the transmission stream of the plurality of still pictures (column 6, lines 21-25 of Steele), a memory unit on the serving computer is inherent. Otherwise, there is no means with which to contain the digital data of the transmission stream on the sending and receiving end, both of which are necessary in a networked computer system (column 5, lines 22-27 of Steele).

**Regarding claims 8, 16, 24 and 32:** Steele discloses that the control unit creates a table (figure 7(52) and column 8, lines 18-23 of Steele) including an offset value of a leading position of each still picture and its corresponding relative location (figure 7(56) and column 8, lines 31-37 of Steele) in the picture stream (column 6, lines 17-21 and column 8, lines 33-34 of Steele), and wherein the transmission unit transmits the table and the sequenced still pictures (figure 7 and column 8, lines 10-16 of Steele).

Art Unit: 2625

Steele does not disclose expressly that the frame number, instead of the relative location, is included in the table; and that the transmission unit transmits the table prior to transmitting the sequenced still pictures.

Hori discloses storing the specific frame number of a still picture taken from a video stream (column 8, lines 9-15 of Hori); and placing the information regarding the thumbnails before the thumbnail data itself, or a pointer to said thumbnail data, in the thumbnail information (figure 3 and column 8, lines 3-8 of Hori). Thus, the information about the thumbnails is transmitted before the thumbnails themselves.

Steele and Hori are combinable because they are from the same field of endeavor, namely digital still picture sampling and presentation of video data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically store the frame number of the still picture, as taught by Hori, as part of the table taught by Steele. The motivation for doing so would have been to be able to specify precisely the time position of the still frame being viewed. Specifying the frame number, as taught by Hori, is more accurate than using a sliding marker that shows a relative location, as taught by Steele, and would thus be more desirable. Further, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to transmit meta-data regarding the still pictures before the still pictures themselves, as taught by Hori, said meta-data being the table taught by Steele. Thus, the transmission unit would transmit the table prior to transmitting the sequenced still pictures. The motivation for doing so would have been to have the meta-data available, such as image format, image size, and relative temporal position within the picture stream (figure 3 of Hori), thus giving the receiving system the information needed to properly render the still picture data for the user. Therefore, it would have been obvious to combine Hori with Steele to obtain the invention as specified in claims 8, 16, 24 and 32.

### *Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



Art Unit: 2625

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



16 January 2007

James A. Thompson  
Examiner  
Technology Division 2625



**DAVID MOORE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**